

VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT

RULE 74.15 - BOILERS, STEAM GENERATORS AND PROCESS HEATERS

(Adopted 3/28/89, Revised 12/3/91, 11/8/94)

A. Applicability

1. The provisions of this rule shall apply to boilers, steam generators and process heaters used in all industrial, institutional and commercial operations, except as follows:
 - a. Utility electric power generating units and any auxiliary boiler used with a utility electric power generating unit.
 - b. Water heaters.

B. Requirements

1. No person shall allow the discharge into the atmosphere from any boiler, steam generator or process heater with a rated heat input capacity of equal to, or greater than, five (5) million BTU's per hour, and an annual heat input rate of equal to, or greater than, 9×10^9 BTU's per calendar year, oxides of nitrogen emissions in excess of 40 parts per million volume. Carbon monoxide emissions from units subject to this rule shall not exceed 400 ppmv.

Units subject to the above provisions shall test for compliance not less than once every 24 months.

2. Any boiler, steam generator or process heater with a rated heat input capacity of equal to, or greater than, five (5) million BTU's per hour, and having an annual heat input rate of less than 9×10^9 BTU's per calendar year, shall comply with one of the following requirements:
 - a. The unit shall be operated in a manner that maintains stack gas oxygen concentrations at less than or equal to three (3) percent on a dry basis for any 15-consecutive-minute averaging period. Units subject to this provision shall test for compliance every six (6) months; or
 - b. The unit shall be operated using a stack gas oxygen trim system set at three (3) percent oxygen. The tolerance of the setting shall be \pm five (5) percent. Units subject to this provision shall test for compliance every twelve (12) months; or
 - c. The unit shall be tuned at least twice per calendar year, at intervals from four (4) to eight (8) months apart, in accordance with the procedure

described in Attachment 1 for forced draft fired equipment or Attachment 2 for natural draft fired equipment, except as follows:

- 1) If the unit operates less than six continuous months per calendar year, one tune-up per calendar year shall be required. Continuity shall be broken after downtime of greater than seven (7) days.
 - 2) If the unit is operated less than ten (10) days per calendar year, no tune-up shall be required.
- ; or
- d. The unit shall comply with the emission and testing requirements of Subsection B.1.
3. In lieu of compliance with the provisions of Subsection B.1 of this rule, the pilot burners associated with Units H-1 and H-2 on District Permit to Operate 0271 shall meet an alternate NOx emission limit of 90 ppmv.

C. Exemptions

1. The provisions of this rule shall not apply to any boiler, steam generator or process heater with a rated heat input capacity of less than five (5) million BTU's per hour.
2. The provisions of Subsection B.1 of this rule shall not apply to any boiler, steam generator or process heater operated on alternate fuel under the following conditions:
 - a. Alternate fuel use is required due to the curtailment of natural gas service to the individual unit by the natural gas supplier. Alternate fuel use in this case shall not exceed the period of natural gas curtailment.
 - b. Alternate fuel use is required to maintain the alternate fuel system. Alternate fuel use in this case shall not exceed 50 hours per year.

The tune-up requirements specified in Section B.2.c shall not be required for alternate fuel use.

3. The provisions of Subsection B.1 of this rule shall not apply to the use of an emergency standby unit when a breakdown occurs to the primary unit, and the breakdown is reported pursuant to the breakdown reporting requirements of Rule 32. Emissions resulting from the operation of the standby unit shall not exceed the total annual or hourly permitted emission rate of the primary unit. Operation of the standby unit shall not occur beyond the period of the primary unit's emergency breakdown.

4. The provisions of Subsection B.1 of this rule shall not apply during the cold startup of an applicable unit. For units with a rated heat input capacity of equal to, or greater than, one hundred (100) million BTU's per hour, the duration of this exemption shall not exceed three (3) hours. For units with a rated heat input capacity of less than one hundred (100) million BTU's per hour, the duration of this exemption shall not exceed one (1) hour.
5. The provisions of Subsection B.1 of this rule shall not apply during excess emission occurrences associated with the ramp-up and ramp-down procedures used for transition between the pilot burners and the main burners associated with Units H-1 and H-2 on District Permit to Operate 0271. For each ramp-up or ramp-down event, cumulative periods of exemption shall not exceed three (3) hours.

D. Recordkeeping Requirements

1. Any person subject to the provisions of Subsection B.2 of this rule shall install a totalizing fuel meter for each applicable unit and for each fuel. The meter shall be used to demonstrate that each unit operates at or below the applicable heat input level.

Meters shall be accurate to \pm one (1) percent, as certified by the manufacturer in writing. Totalizing fuel meter readings shall be recorded monthly, shall be maintained for a period of four (4) years, and shall be made available for inspection by the Air Pollution Control Officer upon request.

2. Any person subject to the provisions of Subsection B.2.c of this rule shall submit a report to the District twelve (12) months after achieving compliance with Subsection B.2.c. Reports shall continue to be submitted every twelve (12) months. This report shall verify that each tune-up has been performed and that the results were satisfactory. The report shall contain all information or documentation that the Air Pollution Control Officer may determine, in writing, to be necessary.
3. Any person utilizing alternate fuel, pursuant to the provisions of Subsection C.2 of this rule, shall maintain permanent daily records of each occurrence. Each record shall include the type of fuel, the quantity of fuel, and the duration of the occurrence. Records shall be maintained for a period of four (4) years and shall be available for inspection by the Air Pollution Control Officer upon request.

E. Test Methods

1. Compliance with the emission requirements in Section B shall be determined using the following test methods:
 - a. Oxides of Nitrogen - ARB Method 100

- b. Carbon Monoxide - ARB Method 100
 - c. Stack Gas Oxygen - ARB Method 100
- 2. Emission tests resulting in compliance determinations for the requirements of Subsection B.1 and B.3 shall be conducted on units in "as-found" operating condition. However, no emission test for this rule shall be conducted during start-up, shutdown or under breakdown conditions.
 - 3. The NO_x parts per million emission limitation specified in Subsection B.1 and B.3 is expressed as nitrogen dioxide. The limitations for both NO_x and CO are referenced at three (3) percent volume stack gas oxygen on a dry basis averaged over 15 consecutive minutes.

F. Violations

- 1. Failure to comply with any provision of this rule shall constitute a violation of this rule.
- 2. Any unit subject to the provisions of Subsection B.2 shall comply with the provisions of Subsection B.1 if the unit operates during any twelve (12) month period at a total annual heat input rate greater than the applicable annual heat input rate specified in Subsection B.2.

G. Definitions

- 1. "Boiler, Steam Generator": Any external combustion equipment fired with liquid and/or gaseous fuel and used to produce steam. These terms do not include any unfired waste heat recovery boiler that is used to recover sensible heat from the exhaust of any combustion equipment.
- 2. "Cold startup procedure": The process of bringing an applicable unit and its associated emission control device up to operating temperature after the unit has experienced zero fuel flow for a period of time and is considered cold. An applicable unit shall be considered cold if the temperature of the flue gas leaving the economizer outlet is less than 100 degrees F.
- 3. "Process Heater": Any external combustion equipment fired with liquid and/or gaseous fuel and which transfers heat from combustion gases to water or process streams. Process Heater does not include any kiln or oven used for drying, baking, cooking, calcinating or vitrifying or any fuel-fired degreasing or metal finishing equipment.
- 4. "Rated Heat Input Capacity": The heat input capacity specified on the nameplate of the unit's burner. If the burner has been permanently altered or modified such that the maximum heat input is different than the input capacity specified on the nameplate, and this alteration or modification has been approved in writing by the

Air Pollution Control Officer, then the new maximum heat input shall be considered as the rated heat input capacity.

5. "Unit": Any boiler, steam generator or process heater as defined in Subsections G.1 and G.2 of this rule.
6. "Water Heater": A device that heats water to a thermostatically-controlled temperature of no more than 210 degrees Fahrenheit for delivery on demand.

H. Increments of Progress

1. For units subject to Subsection B.1 and with a rated heat input capacity of equal to or greater than ten (10) million BTU's per hour, complete Authority to Construct applications shall be submitted to the APCD before March 1, 1990, and final compliance shall be demonstrated before September 1, 1991.
2. For units subject to Subsection B.1 and with a rated heat input capacity of equal to or greater than five (5) million BTU's per hour, but less than ten (10) million BTU's per hour, complete Authority to Construct applications shall be submitted to the APCD before March 1, 1991, and final compliance shall be demonstrated before March 1, 1992.
3. For units subject to Subsections B.2, final compliance shall be demonstrated by March 1, 1990.